

REMARKS

Claims 1-5, 9, 11, 13-18, 23, 25-29, 34-39, 42, 43, and 45-48 are pending in the present application. Claims 6-8, 10, 12, 19-22, 24, 30-33, 40-41, and 44 have been cancelled. Claims 1, 14, 25, and 35 have been amended to incorporate Claims 12, 24, 32, and 44 respectively. Claims 45-48 are new independent versions of Claims 12, 24, 32, and 44 respectively. In view of the amendments and following remarks, the Applicant requests the Examiner's thoughtful reconsideration.

Title Objection: The Examiner maintains the objection to the Title "OPTICAL DISK DRIVE FOCUSING APPARATUS" asserting that it is not descriptive. The Examiner states that a new title is required that is clearly indicative of the invention to which the claims are directed. The Examiner goes on to recommend the title "OPTICAL DISK DRIVE FOCUSING APPARATUS WITH FEED FORWARD SIGNAL" and invited the Applicant to read MPEP 606.01. That section is reproduced below.

Where the title is not descriptive of the invention claimed, the examiner should require the substitution of a new title that is clearly indicative of the invention to which the claims are directed

MPEP 606.01.

It is initially noted that not one of the pending claims uses the phrase "FEED FORWARD SIGNAL." The Applicant cannot understand how the addition of that phase to the title would make the title any more indicative of the invention to which the claims are directed.

The preamble of Claim 1 recites "a system for providing a signal to an actuator within an optical disk drive, to focus optics on an optical disk within the optical disk drive." Plainly the current title OPTICAL DISK DRIVE FOCUSING APPARATUS is indicative of the invention to which Claim 1 is directed.

The preamble of Claim 14 recites "a processor-readable medium comprising processor-executable instructions for focusing optics within an optical disk drive." Plainly the current title OPTICAL DISK DRIVE FOCUSING APPARATUS is indicative of the invention to which Claim 14 is directed.

The preamble of Claim 25 recites “a method of focusing optics on a disk within an optical disk drive.” Plainly the current title OPTICAL DISK DRIVE FOCUSING APPARATUS is indicative of the invention to which Claim 25 is directed.

The current title is descriptive of the invention claimed in each of independent Claims 1, 14, and 25. These Claims are each directed to focusing optics within an optical disk drive. As such, the title OPTICAL DISK DRIVE FOCUSING APPARATUS is descriptive of the invention claimed in each of those Claims.

Claim Rejections – 35 USC §112: The Examiner rejected Claims 6-8, 19-21, 30, 33, and 40-42 under §112, second paragraph. Those Claims have been cancelled rendering the rejection moot.

Claim Rejections – 35 USC §102: The Examiner rejected Claims 1, 4, 5, 10, 11, 14, 17, 18, 22, 23, 25, 28, 29, 31, 35, 38, 39, and 43 under §102 as being anticipated by USPN 5,742,573 issued to Hajjar.

Claims 45 and 1: Claim 1 has been amended to depend from new Claim 45. Claim 45 is an independent version of Claim 12 and is directed to a system for establishing a baseline signal for application to an actuator within an optical disk drive to focus optics on an optical disk within the optical disk drive. The system includes a the baseline actuator positioning routine that is configure to do the following:

1. apply actuator control signals to the actuator to step the actuator through a full range of focus
2. obtain a SUM signal at each step, the SUM signal being a sum of signals received from a plurality of focus sensors;
3. identify one of the obtained SUM signals; and
4. set the baseline actuator control signal according an applied actuator control signal which resulted in the identified one of the obtained SUM signals.

It is initially noted that the Examiner admitted that Hajjar does not teach or suggest that which was recited in Claims 12. Consequently, Hajjar also fails to teach or suggest Claim 45 or Claim 1. In rejecting Claim 12, the Examiner relied on USPN 6,813,226 making the following statement at page 10.

Kadlec discloses a focusing system including calculating a focus sum threshold (column 3, lines 28-42). The focus sum threshold is used to determine if a focus is acceptable (column 55, lines 35-49). Calculating a focus sum threshold comprises: stepping an actuator through a full range of focus (column 55, lines 15-24); recording a maximum value of the SUM signal data obtained with the full range of focus (column 55, lines 32-34); and setting the focal sum threshold close to the maximum value of the SUM signal data (column 55, lines 35-49).

It is initially noted that Claim 12 recited a baseline actuator positioning routine configured to “set the baseline signal according to an input to the actuator which resulted in close to the maximum value of the SUM signal data.” In rejecting Claim 12, the Examiner never asserted that Kadlec teaches setting a baseline signal. Instead, the Examiner asserts that Kadlec teaches setting the focal sum threshold – a limitation not found in Claims 12.

Claim 45 and Claim 1 though its dependency on Claim 45 recite a baseline actuator positioning routine that is configured to set the baseline actuator control signal according an applied actuator control signal which resulted in the identified one of the obtained SUM signals. As admitted by the Examiner, Kadlec only teaches the calculation of a focus sum threshold by recording a maximum SUM signal and setting the maximum sum threshold close to that maximum SUM signal. Kadlec mentions nothing of setting a baseline actuator control signal according an applied actuator control signal which resulted in the maximum of the obtained SUM signals.

Consequently, Hajjar even when combined with Kadlec fails to teach or suggest a system that includes a baseline actuator positioning routine that is configured to set the baseline actuator control signal according an applied actuator control signal which resulted in the maximum of the obtained SUM signals. For at least this reason, Claim

45 and Claims 1-5, 9, 11, and 13 which depend from Claim 45 are patentable over the cited references.

Claims 46 and 14: Claim 14 has been amended to depend from Claim 46.

Claim 46 recites a processor-readable medium comprising processor-executable instructions for focusing optics within an optical disk drive. The processor-executable instructions include instructions for the following:

1. applying actuator control signals to the actuator to step the actuator through a full range of focus
2. obtaining a SUM signal at each step, the SUM signal being a sum of signals received from a plurality of focus sensors;
3. identifying one of the obtained SUM signals; and
4. setting the baseline actuator control signal according an applied actuator control signal which resulted in the identified one of the obtained SUM signals.

As with Claim 1, Hajjar even when combined with Kadlec fails to teach or suggest setting the baseline actuator control signal according an applied actuator control signal which resulted in the identified one of the obtained SUM signals. For at least this reason, Claim 46 is patentable over the cited references as are Claims 14-18, and 23 which depend from Claim 46.

Claims 47 and 25: Claim 25 has been amended to Claim 47. Claim 47 recites a method of establishing a baseline signal for application to an actuator within an optical disk drive to focus optics on an optical disk within the optical disk drive. The method includes the following:

1. applying actuator control signals to the actuator to step the actuator through a full range of focus;

2. obtaining a SUM signal at each step, the SUM signal being a sum of signals received from a plurality of focus sensors;
3. identifying one of the obtained SUM signals;
4. setting the baseline actuator control signal according an applied actuator control signal which resulted in the identified one of the obtained SUM signals.

As with Claim 1, Hajjar even when combined with Kadec fails to teach or suggest setting the baseline actuator control signal according an applied actuator control signal which resulted in the identified one of the obtained SUM signals. For at least this reason, Claim 47 is patentable over the cited references as are Claims 25-29 and 34 which depend from Claim 47.

Claims 48 and 35: Claim 35 has been amended to depend from Claim 48. Claim 48 is directed to a system for establishing a baseline signal for application to an actuator within an optical disk drive to focus optics on an optical disk within an optical disk drive, the system includes various means for implementing the method of Claims 47. For at least the same reasons Claim 47 is patentable so are Claim 48 and Claims 35-39 and 43 which depend from Claim 48.

Claim Rejections – 35 USC §102: The Examiner rejected Claims 1, 4, 7, 9, 14, 17, 20, 21, 25, 28, 33, 34, 35, 38, 41, and 42 under §102 as being anticipated by US Pub 2002/0089906 to Faucett. Each of the independent Claims 1, 14, 25, and 35 have been amended as indicated above. The amendments add limitations not taught by Faucett.

Claim Rejections – 35 USC §103: The Examiner rejected Claims 2, 3, 5, 16, 26, 27, 36, and 37 under §103 as being unpatentable over Hajjar in view of USPN 5,477,333 issued to Shoda.

Claims 2, 3, and 5 depend from Claim 45 and are patentable over the cited references based at least on their dependence from Claim 45.

Claim 16 depends from Claim 46 and is patentable over the cited references based at least on its dependence from Claim 46.

Claims 26 and 27 depend from Claim 47 and are patentable over the cited references based at least on their dependence from Claim 47.

Claims 36 and 37 depend from Claim 48 and are patentable over the cited references based at least on their dependence from Claim 48.

Claim Rejections – 35 USC §103: The Examiner rejected Claim 8 over Faucett in view of Hajjar.

Claim 8 depends from Claim 45 and is patentable over the cited references based at least on its dependence from Claim 45.

Claim Rejections – 35 USC §103: The Examiner rejected Claims 12, 13, 24, 32, and 44 under §103 as being unpatentable over Hajjar in view of USPN 6,813,226 issued to Kadlec.

Claims 12 and 13: Claim 12 has been cancelled. Claim 13 has been amended to depend from Claim 45 and is patentable based at least in part on that dependency.

Claim 24 has been cancelled..

Claim 32 has been cancelled.

Claim 44 has been cancelled.

Conclusion: In view of the foregoing remarks, the Applicant respectfully submits that the pending claims are in condition for allowance. Consequently, early and favorable action allowing these claims and passing the application to issue is earnestly solicited. The foregoing is believed to be a complete response to the outstanding Office Action.

Respectfully submitted,
Darwin Mitchel Hanks

By /Jack H. McKinney/
Jack H. McKinney
Reg. No. 45,685

December 22, 2006